

	_112	_112	_112	112	112
S+	S+	S+	S+) S+	S+
S-	S-	S-	S-	S-	S-
G	G	G	G	G	G
S+	S+	S+	S+	S+	S+
S-	S-	S-	S-	S-	S-
G	G	G	G	G	G
101 102 103 104 105 106					

FIG. 1A (PRIOR ART)

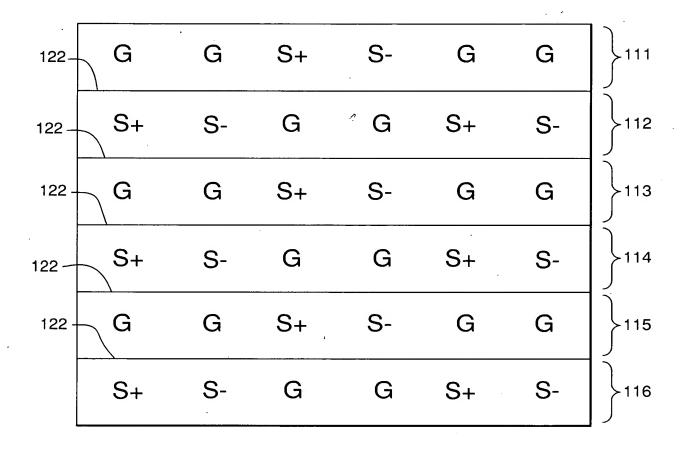


FIG. 1B (PRIOR ART)

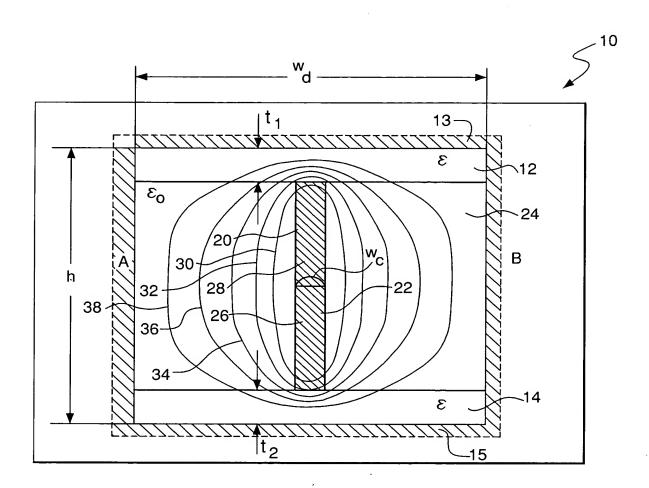


FIG. 2A

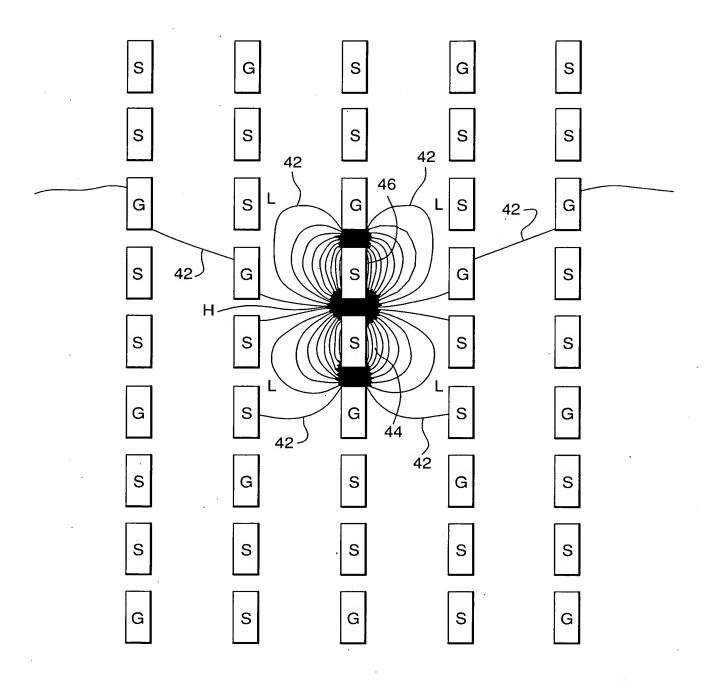


FIG. 2B

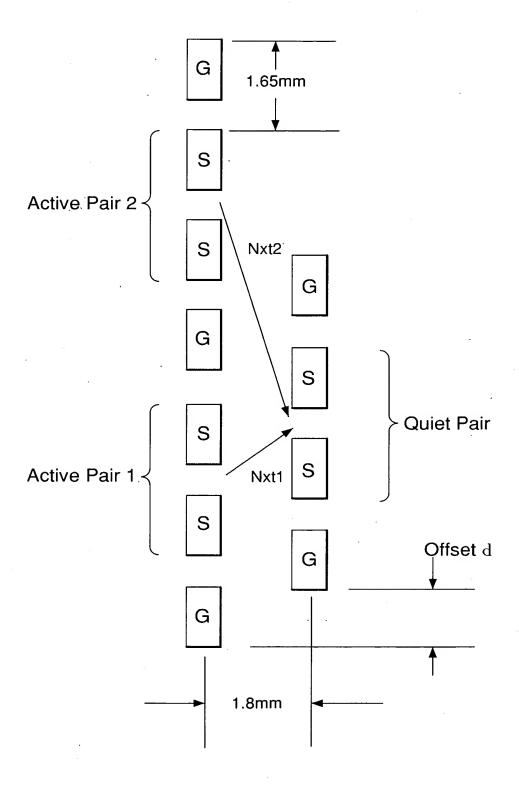


FIG. 3A

NEXT vs. Offset
1.8 mm Col Spacing, 1.65 mm Row Spacing

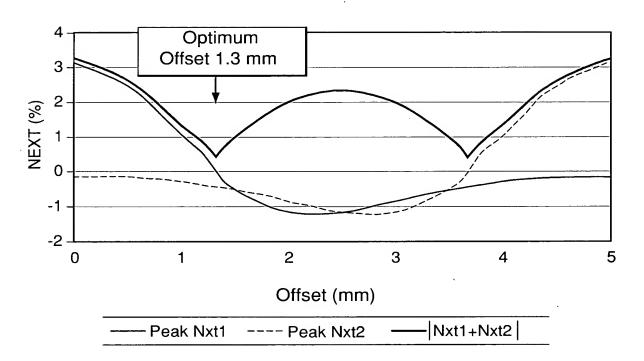


FIG. 3B

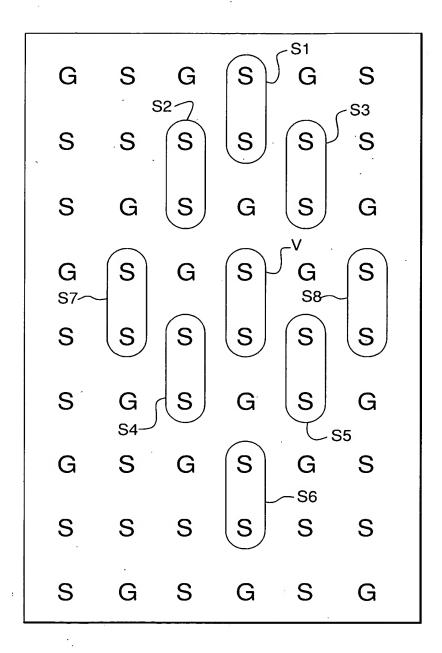


FIG. 3C

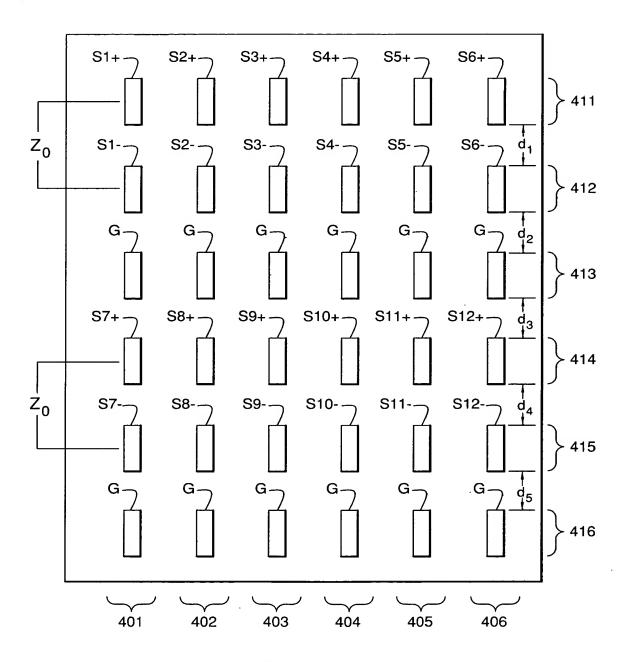


FIG. 4A

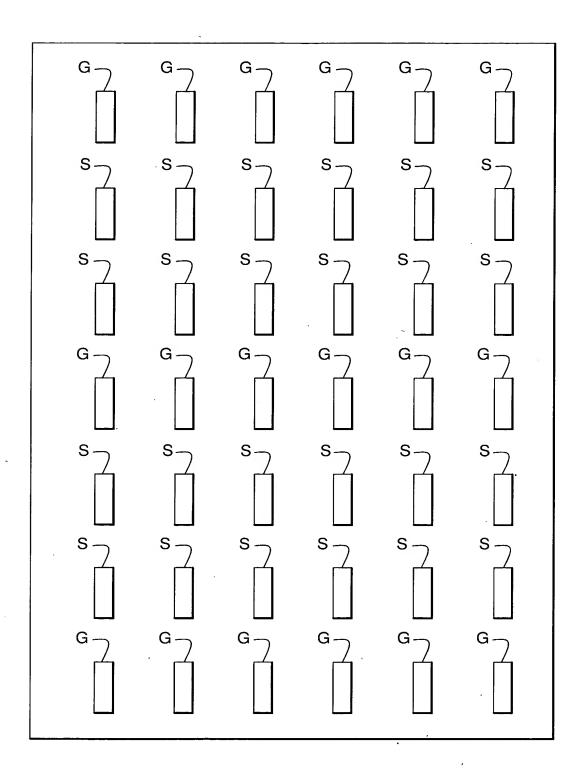


FIG. 4B

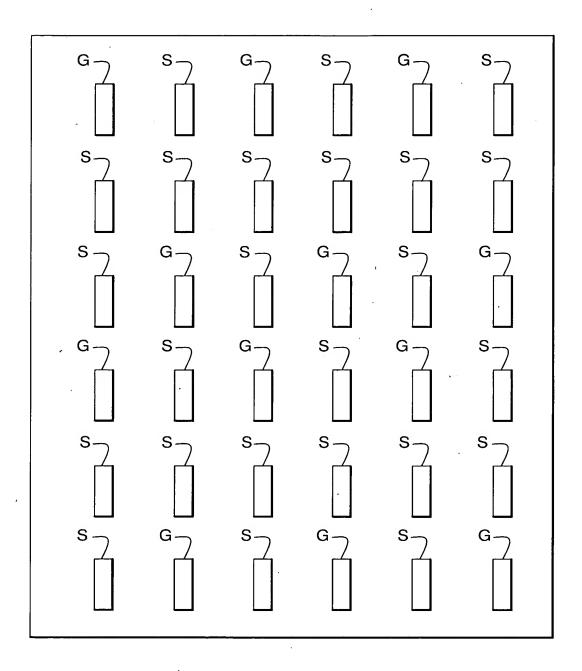


FIG. 4C

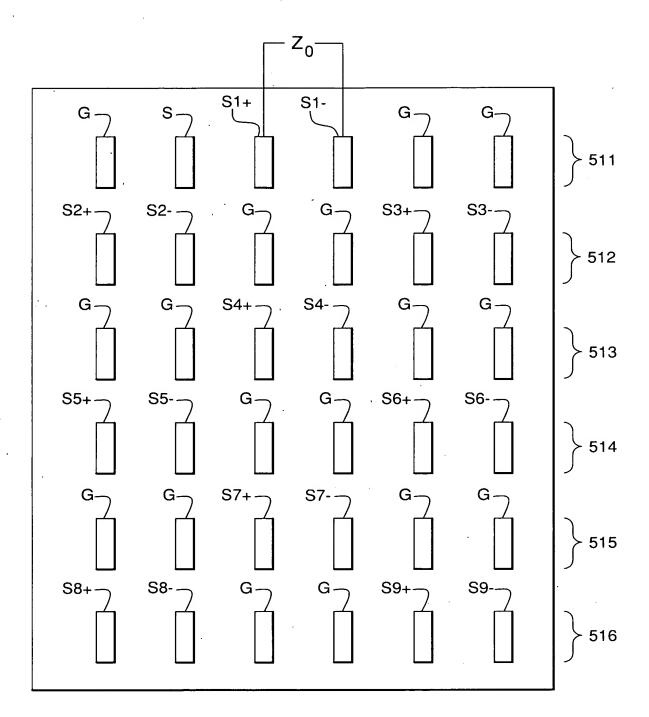
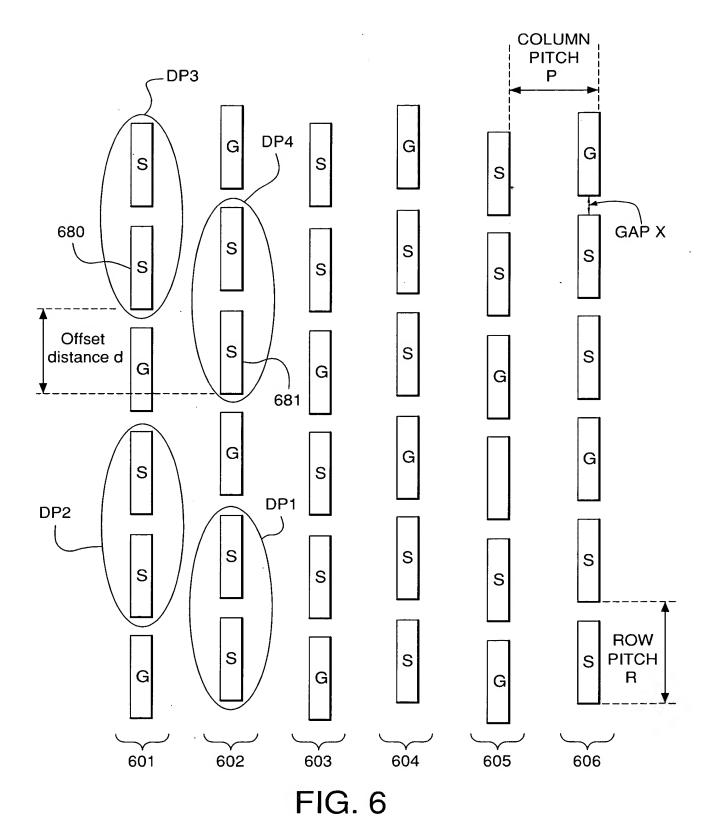
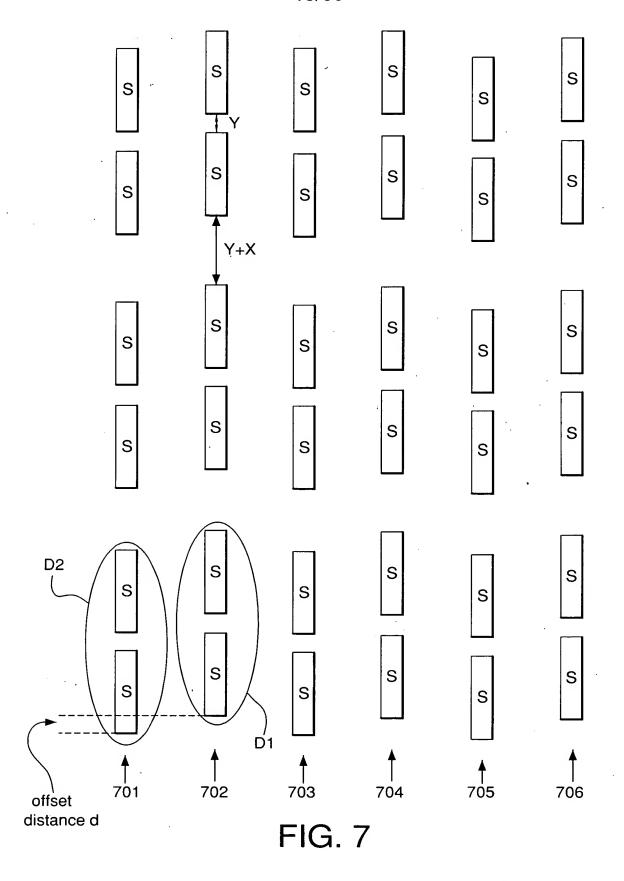
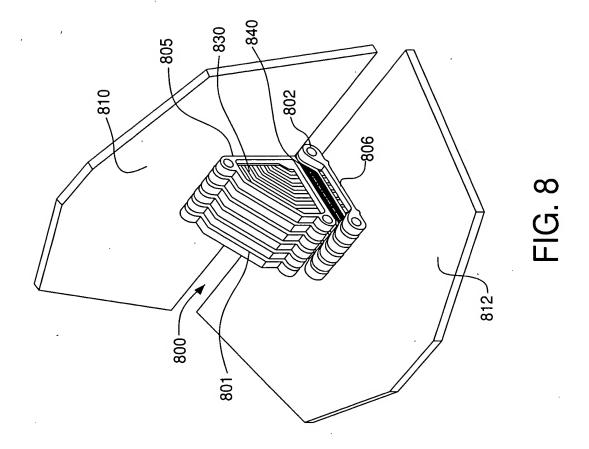
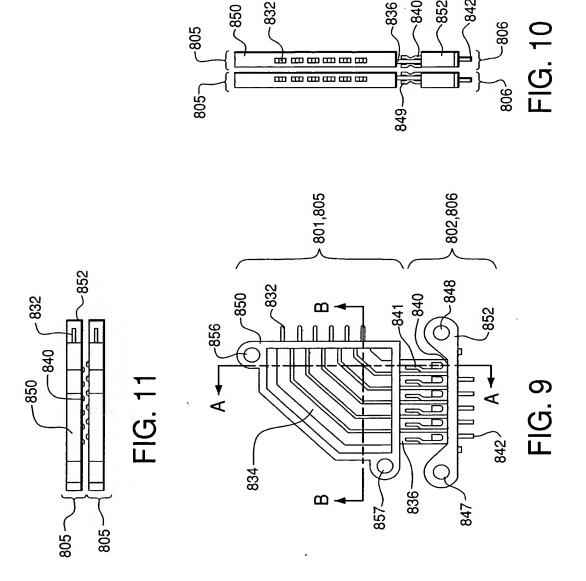


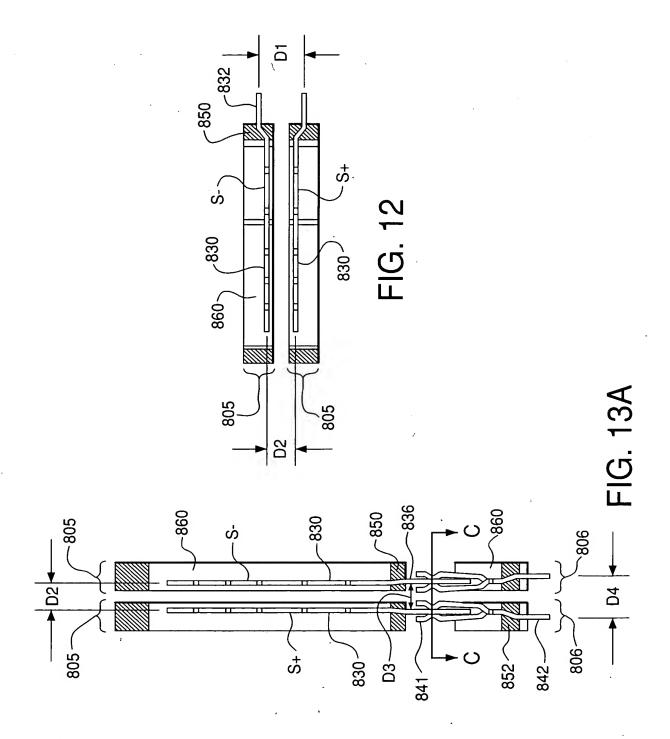
FIG. 5











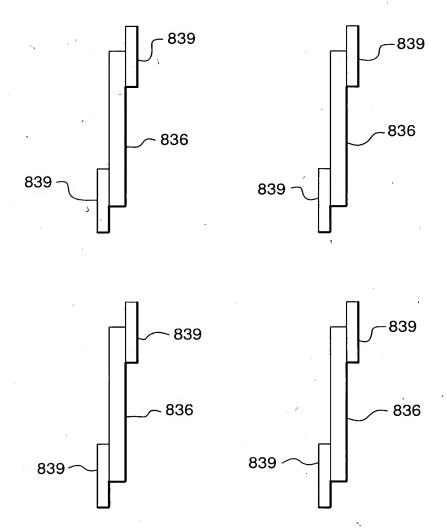
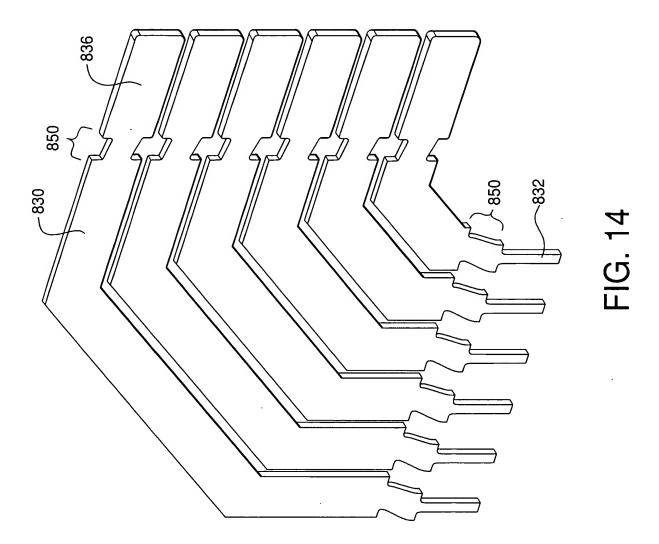
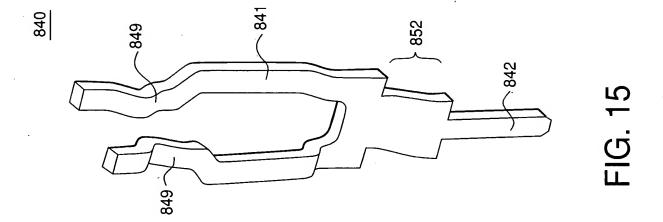
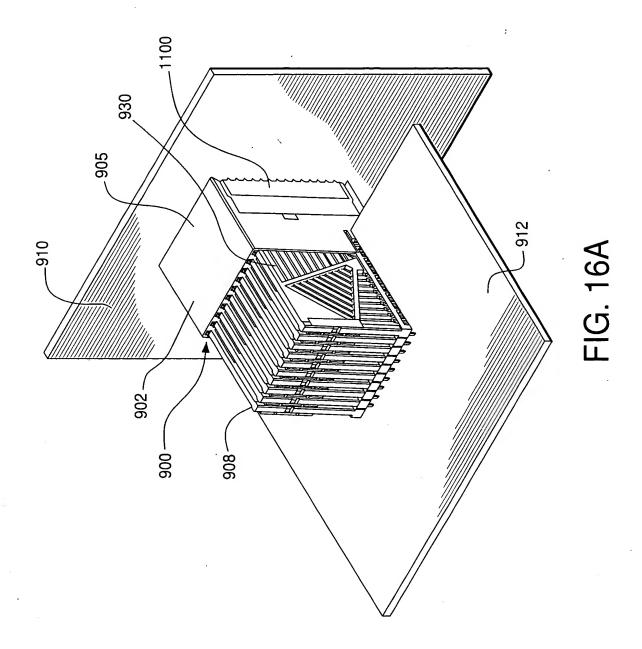


FIG. 13B







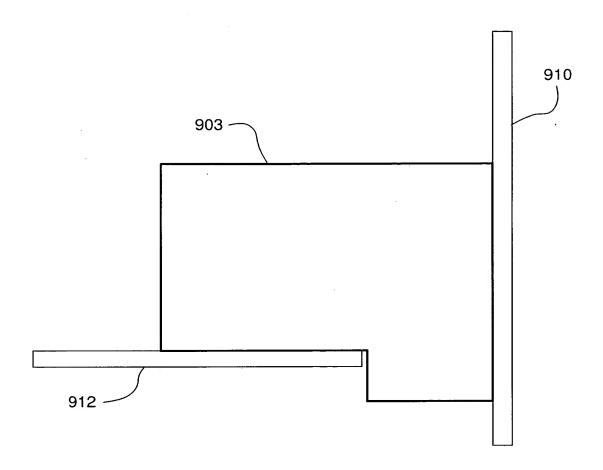


FIG. 16B

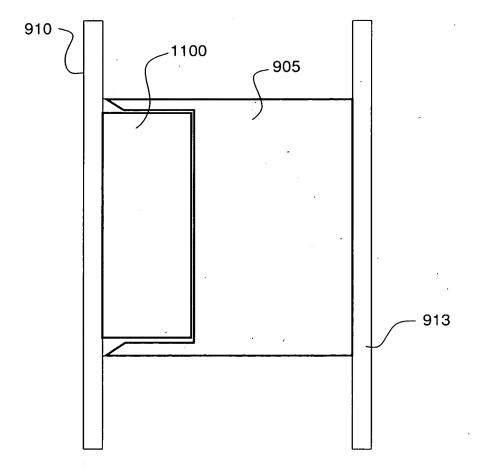


FIG. 16C

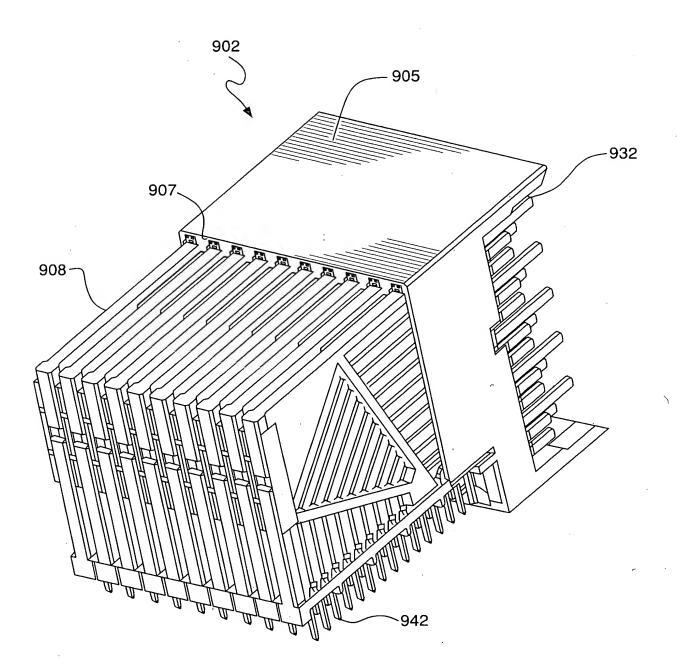


FIG. 17

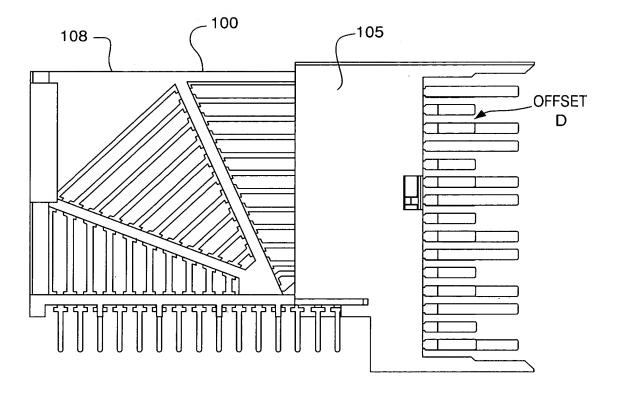


FIG. 18

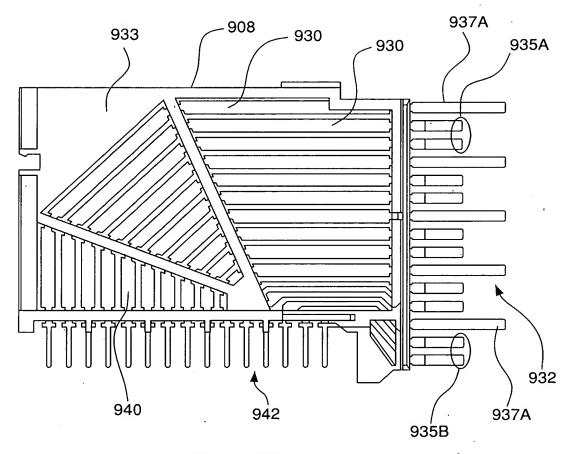


FIG. 19A

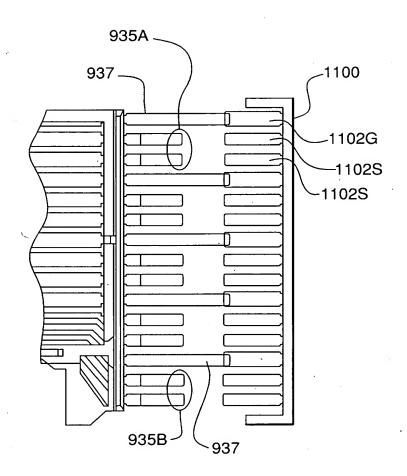


FIG. 19B

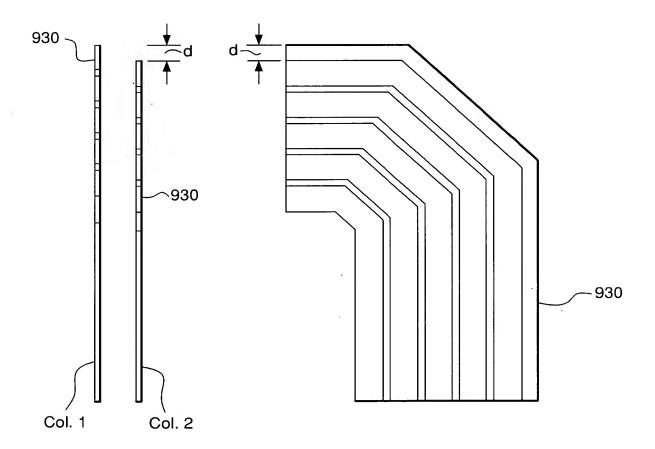


FIG. 20

FIG. 21

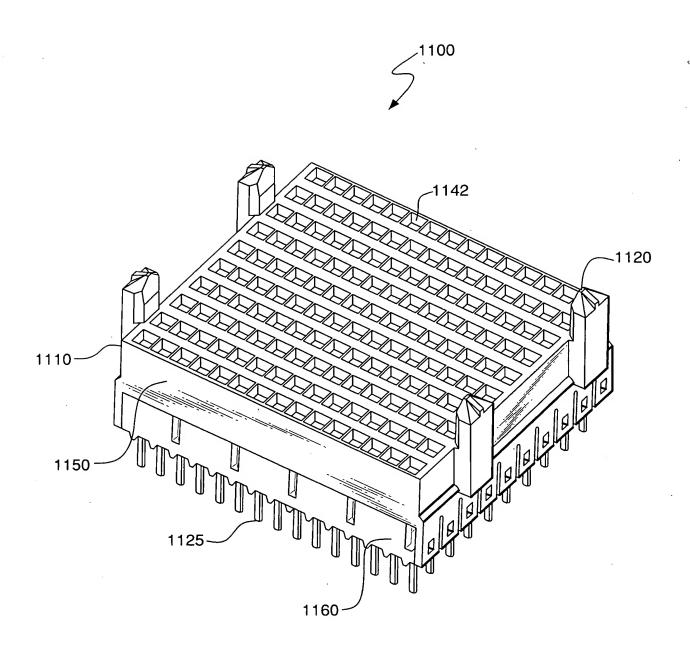


FIG. 22

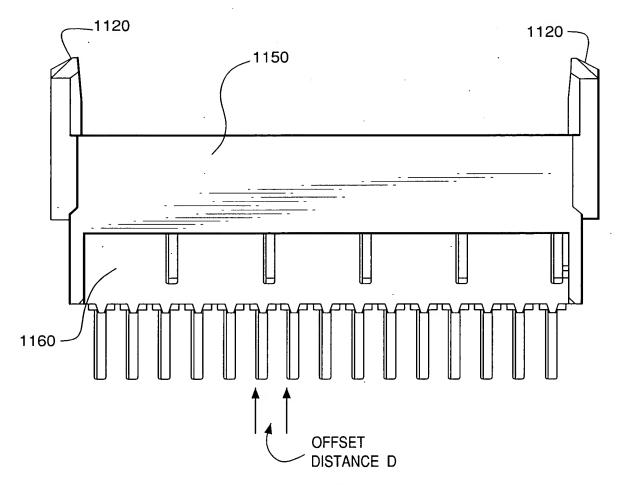
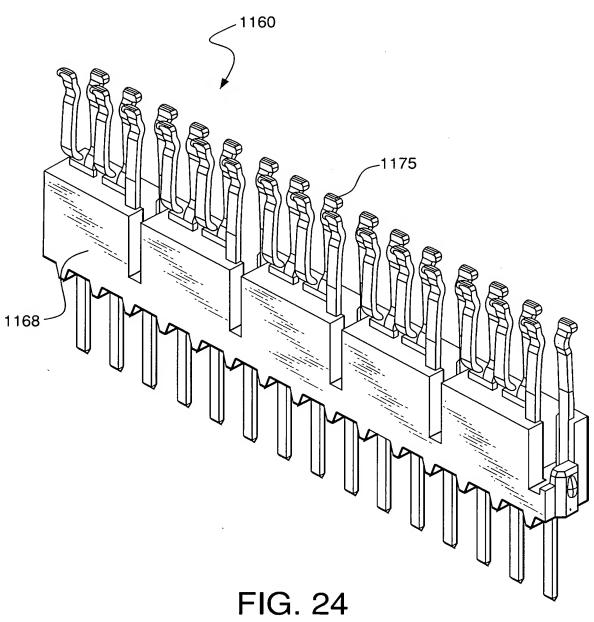
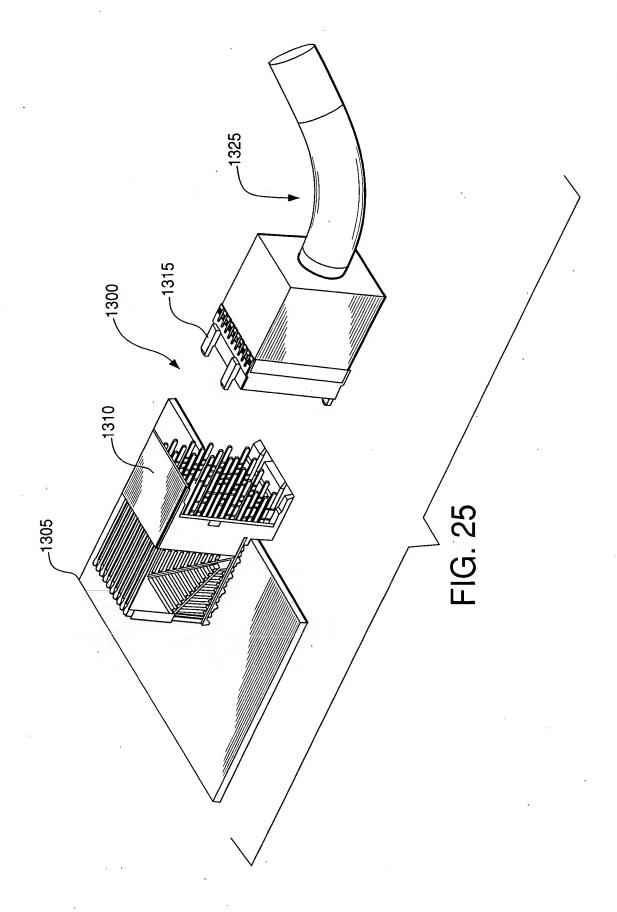


FIG. 23





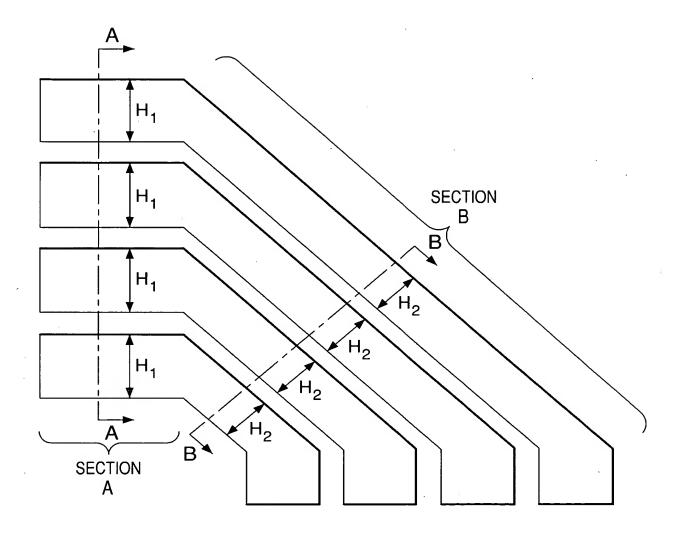


FIG. 26

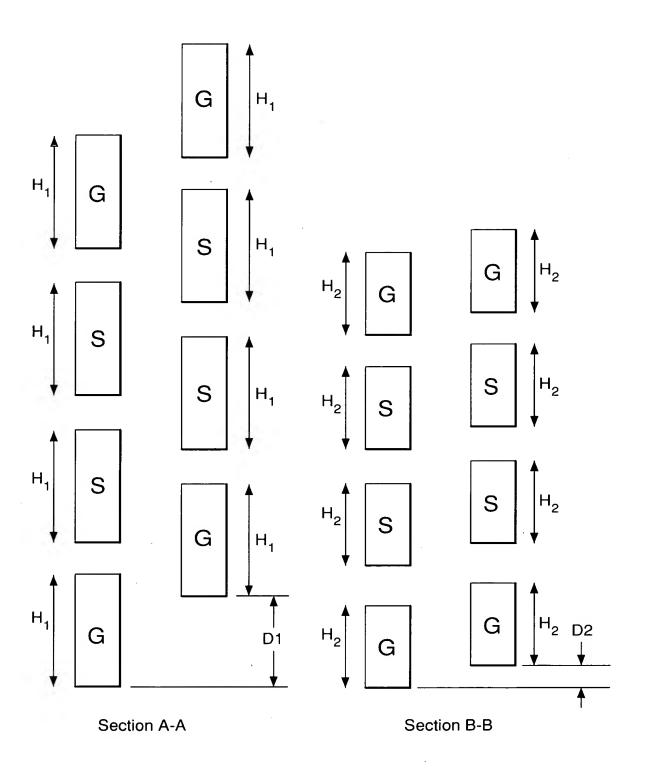


FIG. 27

FIG. 28

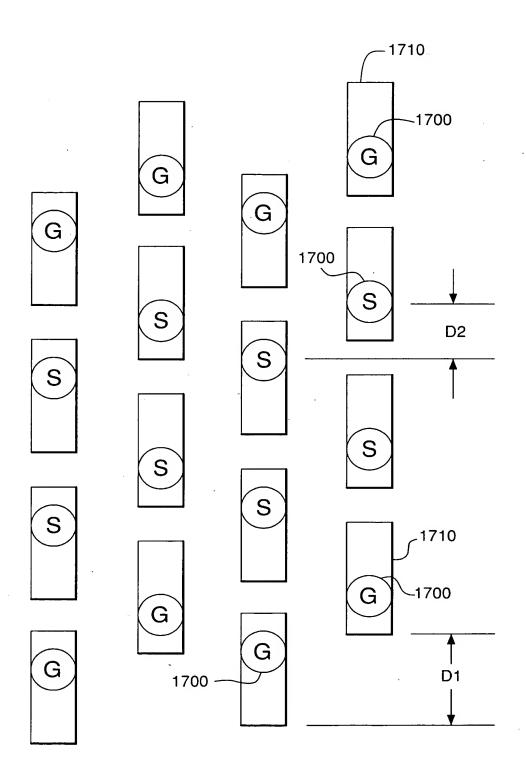


FIG. 29

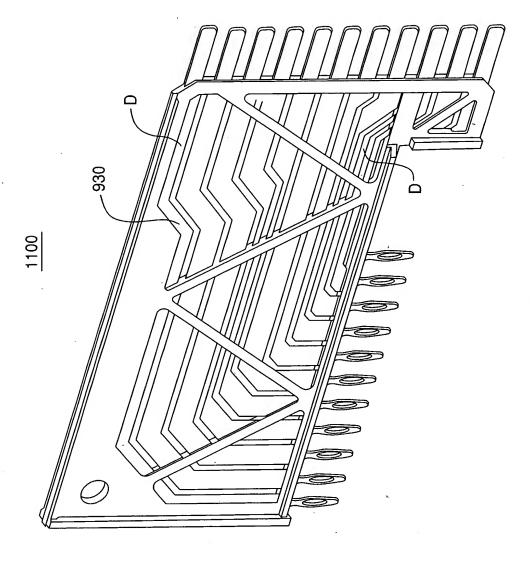
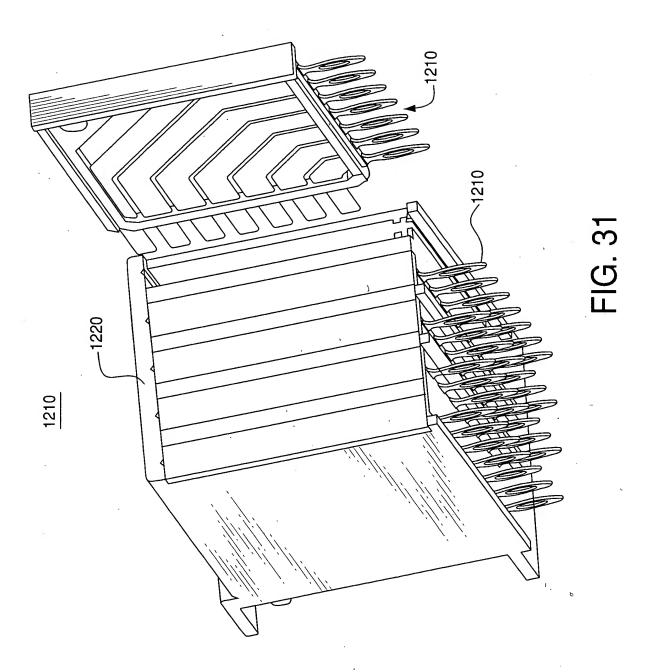


FIG. 30



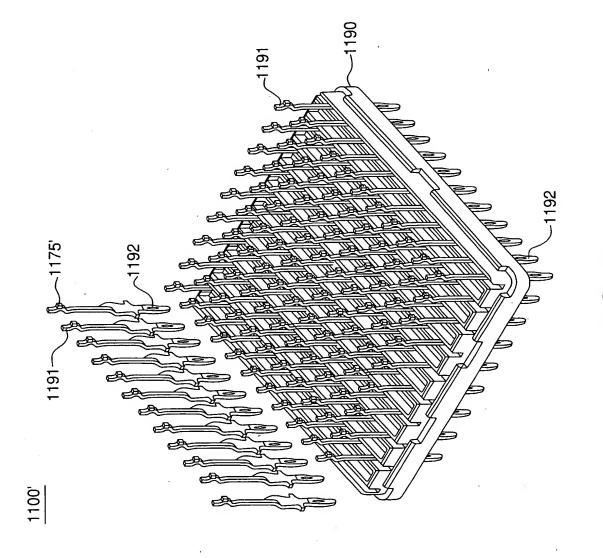


FIG. 32

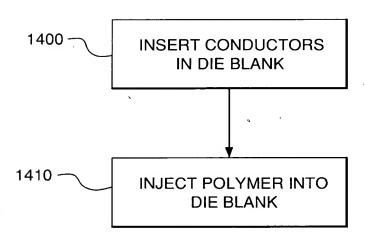
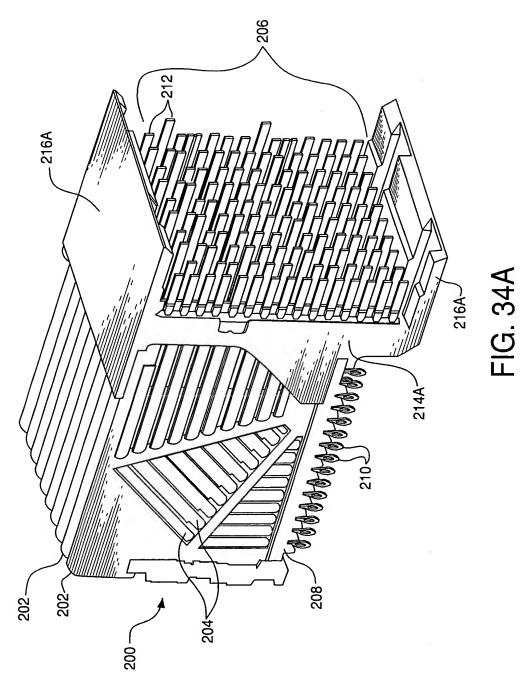


FIG. 33



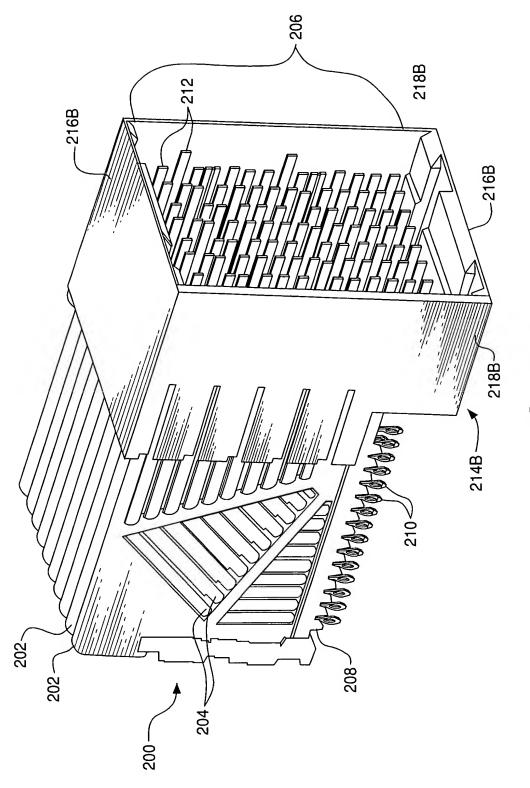
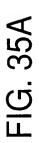
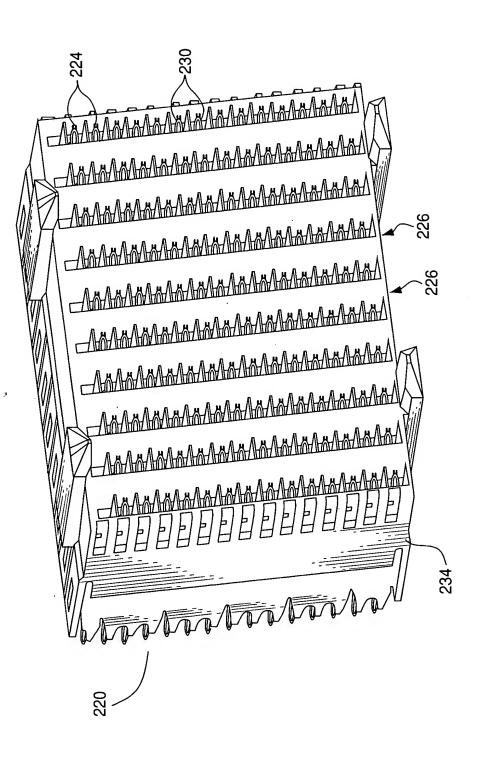


FIG. 34B





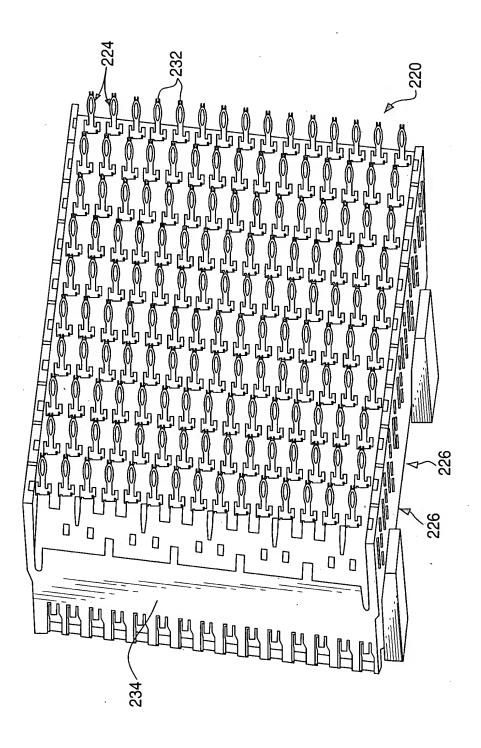
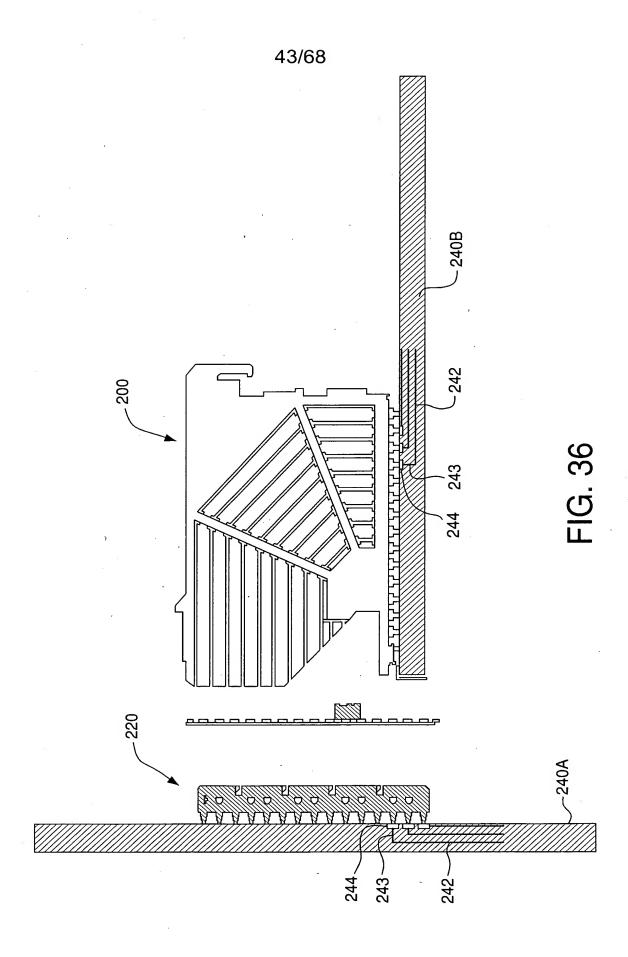


FIG. 35B



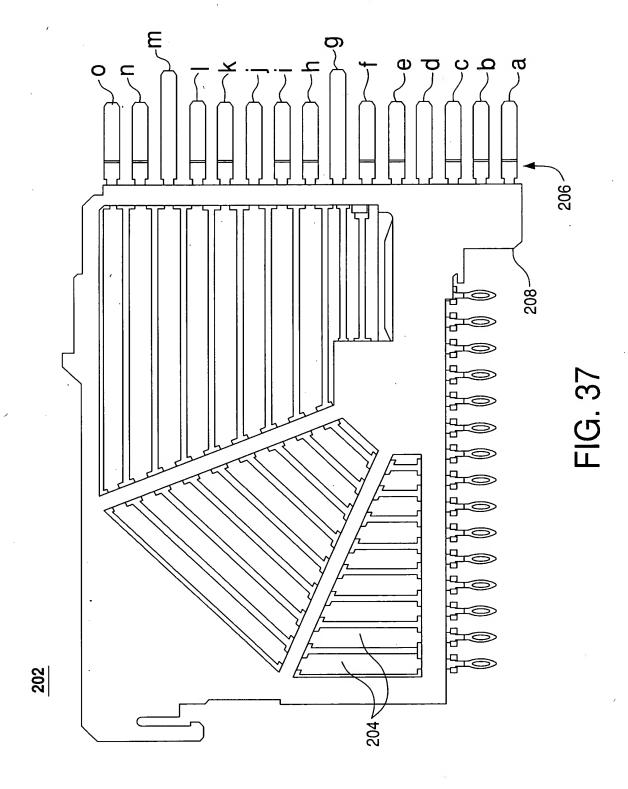
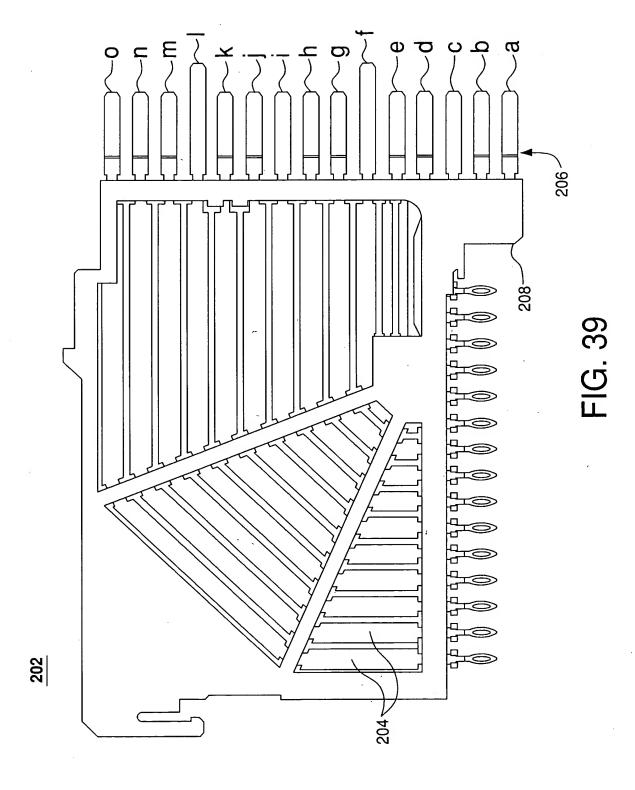


FIG. 38A

FIG. 38B

FIG. 38C



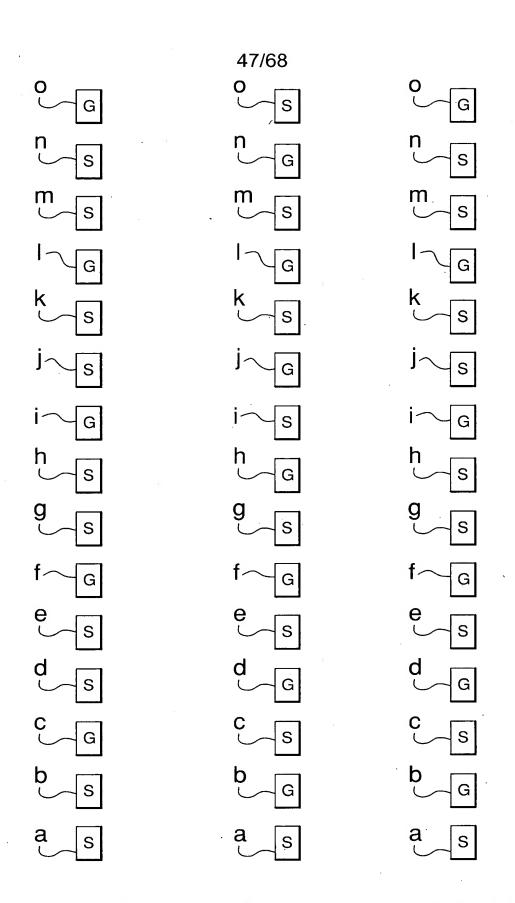
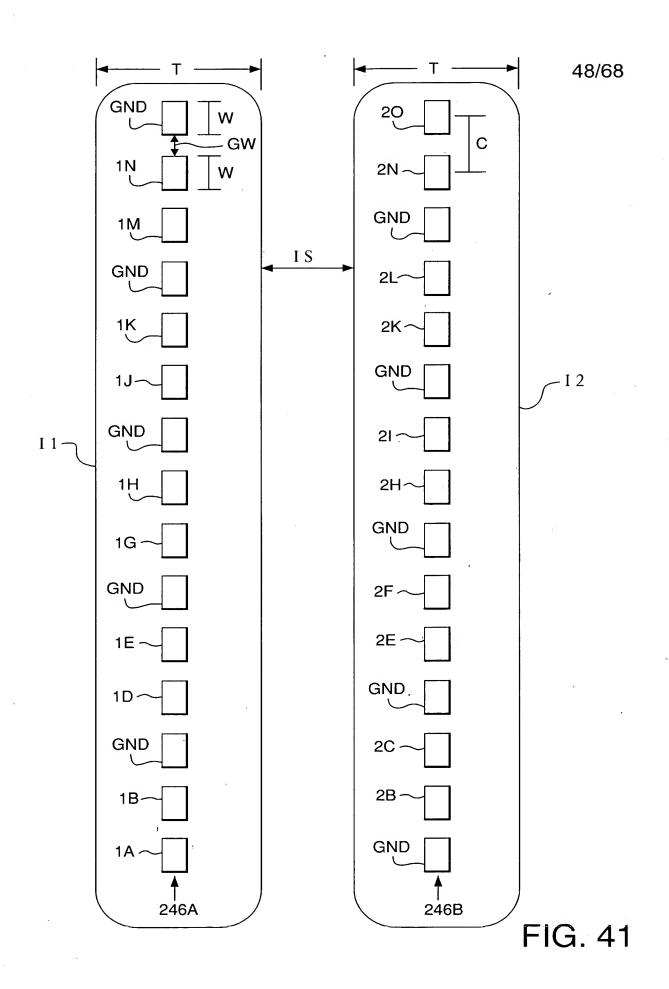


FIG. 40A

FIG. 40B

FIG. 40C



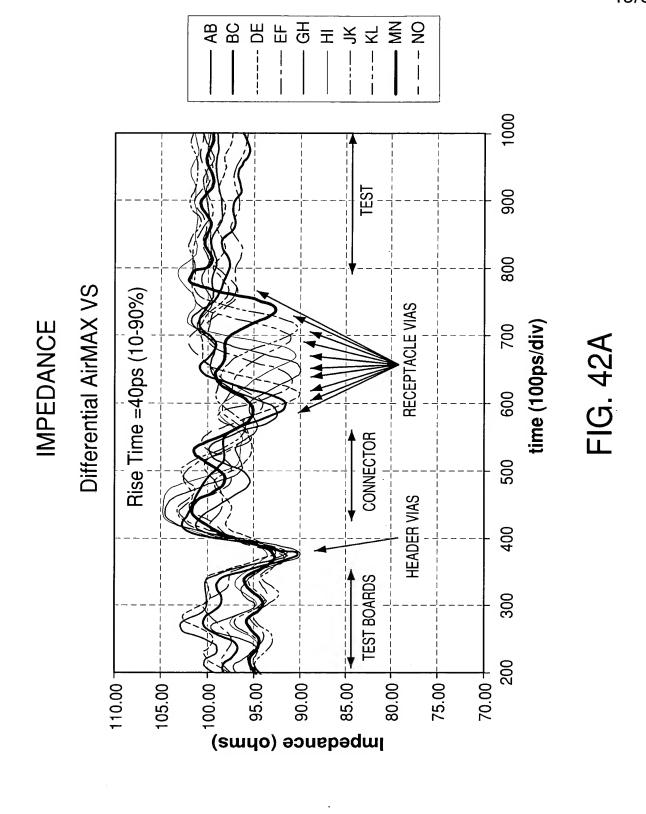
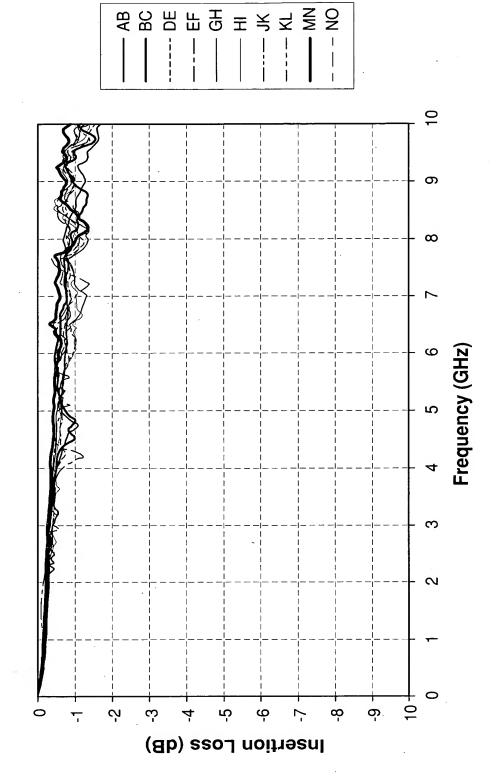


FIG. 42B



Differential AirMax VS



CROSSTALK

Worst-Case Multi-Active Near-End Crosstalk

	AB	BC	DE	EF	GH	王	JK	KL	MN	ON
40ps (10-90%)	1.9	2.4	2.4	2.3	2.5	2.2	2.4	2.1	2.6	1.7
100ps (10-90%)	1.4	1.8	1.7	1.8	1.9	1.7	2.0	1.7	1.8	1.0

FIG. 42C

Worst-Case Multi-Active Far-End Crosstalk

	AB	BC	ЭO	EF	HĐ	HI	ЭK	KL	M	9
40ps (10-90%)	2.7	1.8	2.0	3.4	4.2	3.2	4.1	2.9	2.4	1.1
100ps (10-90%)	1.3	8.0	2.2	1.5	1.9	1.4	1.8	1.3	1.1	0.5

FIG. 42D

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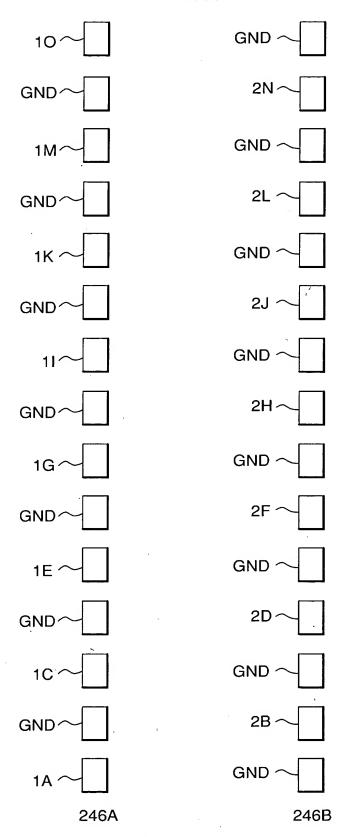
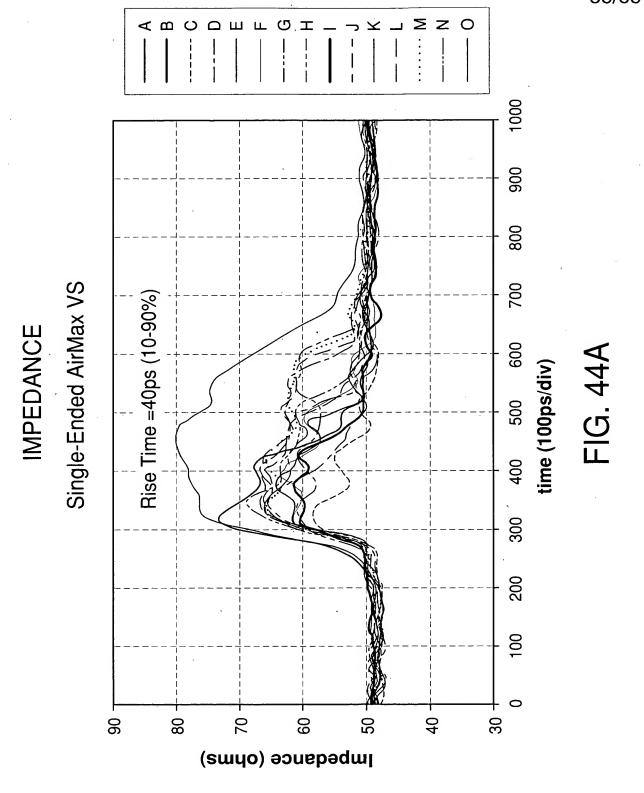
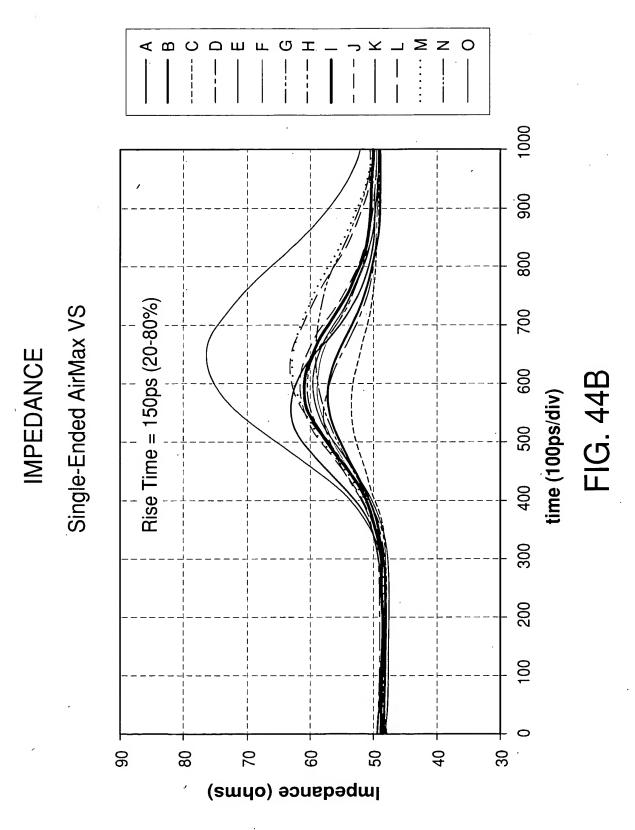


FIG.43





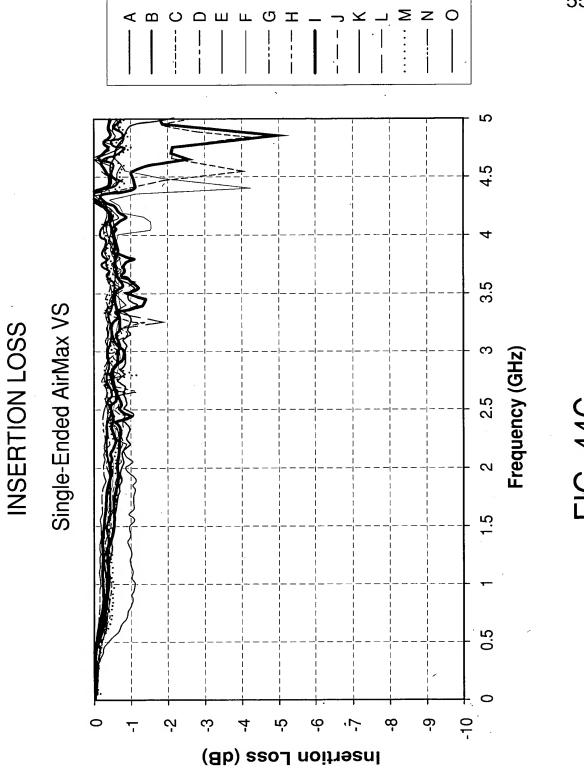


FIG. 44C

CROSSTALK

Worst-Case Multi-Active Near-End Crosstalk

-															
	А	В	0	O	E	J	9	I	_	_	ㅈ		Σ	z	0
150ps(20-80%)	5.0	7.3	7.3	7.4	0.9	6.2	7.2	9.7	8.0	8.7	6.6	9.7	8.0	7.8	4.2

FIG. 44D

Worst-Case Multi-Active Far-End Crosstalk

	Ω	Ш	ч		I	_	7	X	_	M	N	0
150ps(20-80%) 2.0 2.9 2.4 2	2.4	5.6	2.4	2.9	2.9	2.5	2.8	2.6	2.7	2.8	2.8	1.7

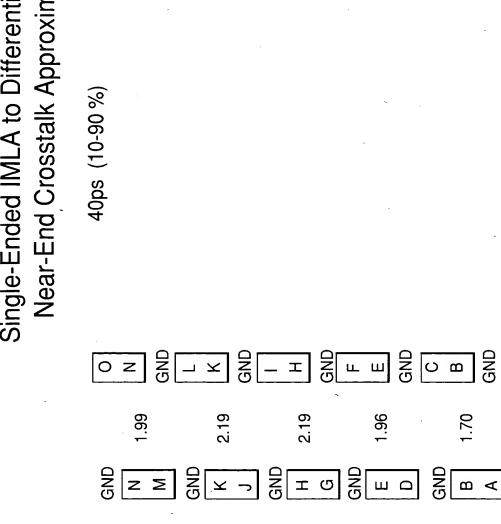
=1G. 44E

S T O O T O O

GND

GND GND





S S S S

Single-Ended IMLA to Differential IMLA

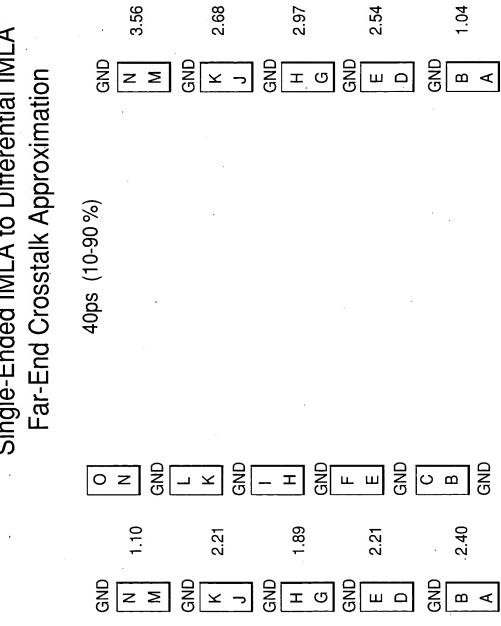
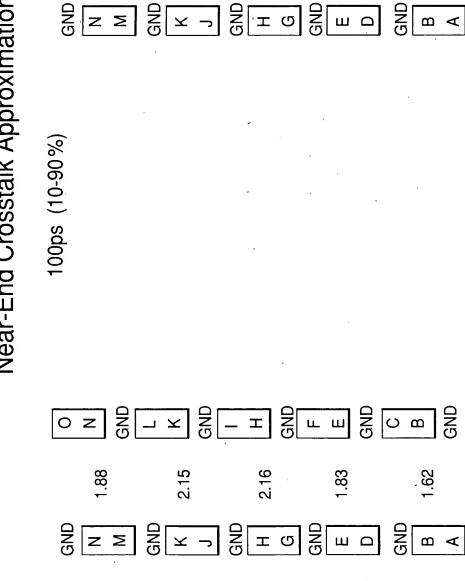


FIG. 45B

2.05

GND



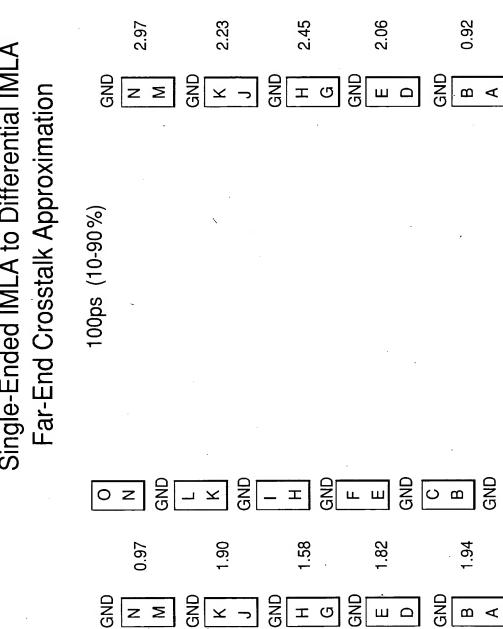


GND

gN GN

- X S

Single-Ended IMLA to Differential IMLA



N A B

GND

Single-Ended IMLA to Differential IMLA

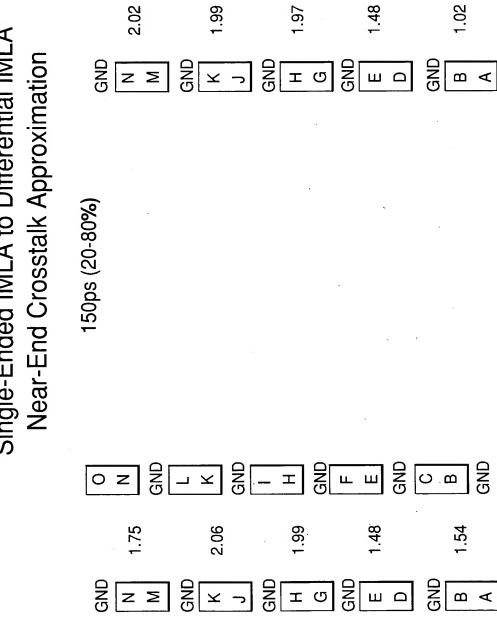


FIG. 45E

GNB

GNE

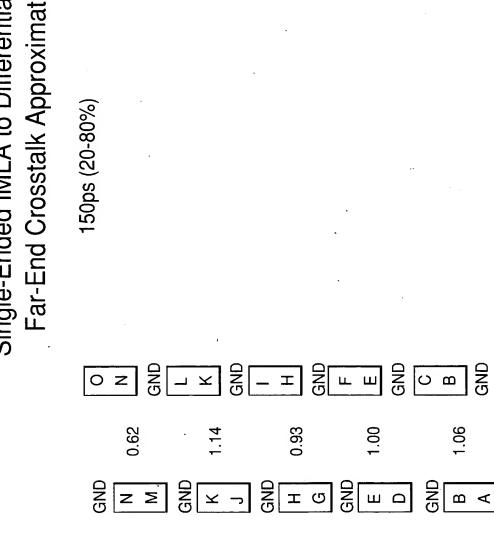
GND GND GND

GND

GND

GND





1.16

S S S S S

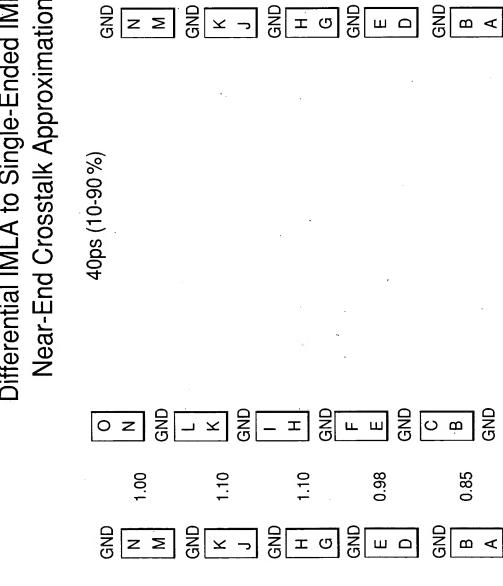
H GND

1.05

1.12

C B C

Differential IMLA to Single-Ended IMLA Near-End Crosstalk Approximation



GND GND

Differential IMLA to Single-Ended IMLA

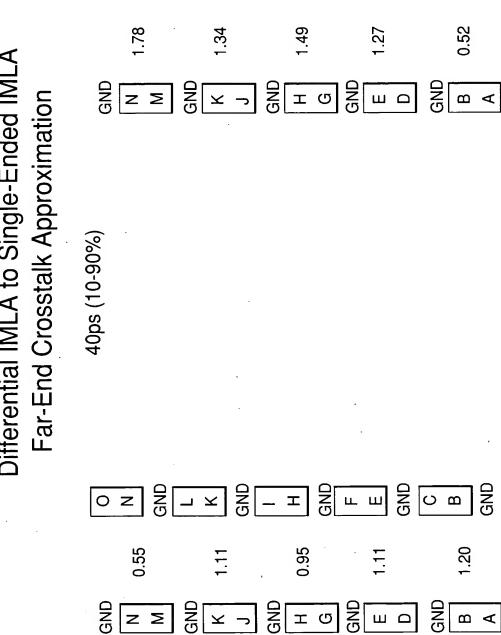


FIG. 46B

GND

1.03

GND

0.99

Differential IMLA to Single-Ended IMLA Near-End Crosstalk Approximation

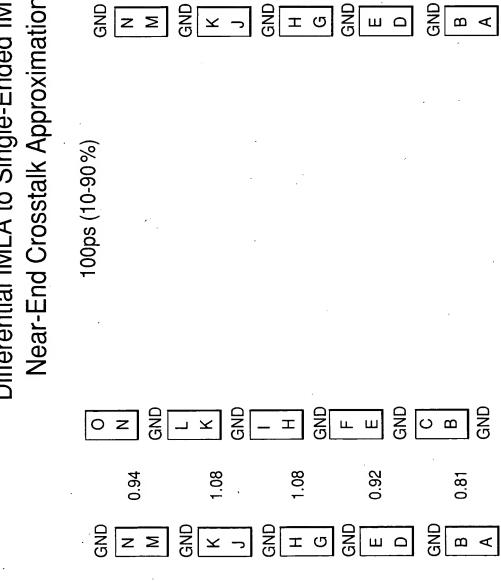


FIG. 46C

GND

GND

Differential IMLA to Single-Ended IMLA

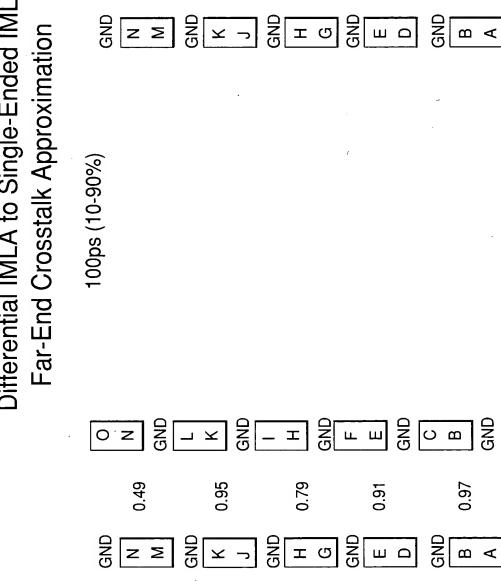


FIG. 46D

0.99

GND GND

0.74

0.51

GND GND

GND GND

Differential IMLA to Single-Ended IMLA Near-End Crosstalk Approximation

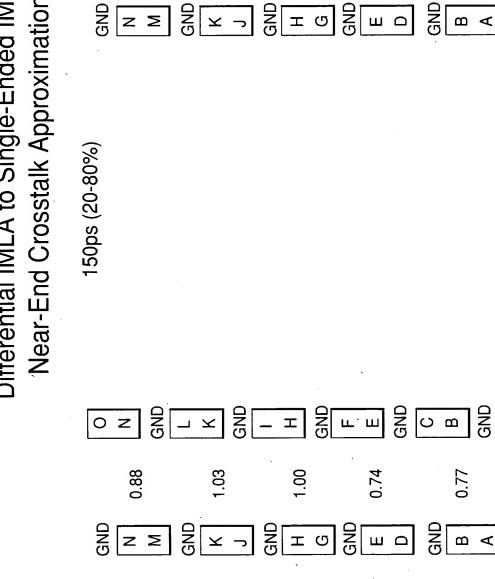


FIG. 46E

0.81

GND

0.61

GND

0.65

GND

0.26

0.54

Differential IMLA to Single-Ended IMLA

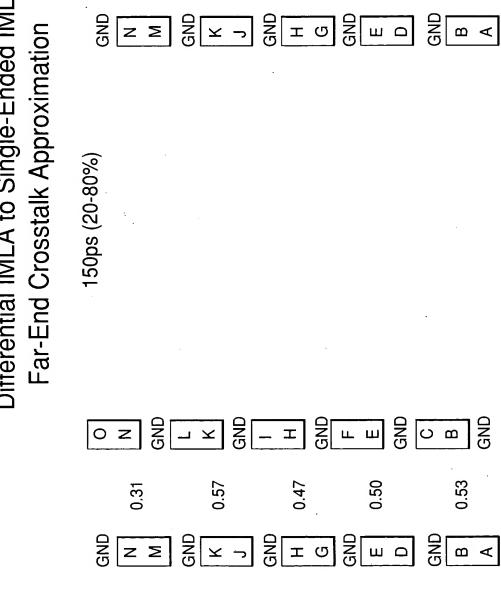


FIG. 46F